

What is claimed is:

1. An air conditioner for a vehicle comprising:

an air conditioning unit that adjusts an air temperature so that conditioned air to be blown into a passenger compartment is obtained;

an air outlet portion having a plurality of air outlets from which conditioned air of the air conditioning unit is blown into the passenger compartment, the air outlet portion having

a direct air outlet from which conditioned air is directly blown to a passenger in the passenger compartment, and

an indirect air outlet from which conditioned air is indirectly supplied to the passenger, the indirect air outlet being provided in an inner wall portion of the passenger compartment for supplying conditioned air substantially from an entire area of the inner wall portion;

a cooling state determining means for determining a proceeding state in a rapid cooling operation; and

an air amount control unit for controlling an air amount blown from the direct air outlet and an air amount blown from the indirect air outlet based on the proceeding state detected by the cooling state determining means,

wherein the air amount control unit increases the air amount blown from the direct air outlet to be larger than the air amount blown from the indirect air outlet, when the cooling state determining means determines that the proceeding state is in an initial stage with respect to a predetermined stage.

2. The air conditioner according to claim 1, wherein:

the air amount control unit increases the air amount blown from the indirect air outlet to be larger than the air amount blown from the direct air outlet, when the cooling state determining means determines that the proceeding state is in a later stage with respect to the predetermined stage.

3. The air conditioner according to claim 2, wherein:

when the cooling state determining means determines that the rapid cooling operation is ended, the air amount control unit reduces a total air amount blown into the passenger compartment to be smaller than that in the initial stage of the rapid cooling operation while supplying conditioned air from the indirect air outlet into the passenger compartment.

4. The air conditioner according to claim 3, wherein:

when the cooling state determining means determines that the rapid cooling operation is ended, the air amount control unit supplies conditioned air only from the indirect air outlet into the passenger compartment.

5. The air conditioner according to claim 1, wherein the direct air outlet is opened in a dashboard to face a passenger on a front seat in the passenger compartment.

6. The air conditioner according to claim 1, wherein the direct air outlet is provided in a seat of the passenger compartment,

for blowing conditioned air from a seat surface to a passenger on the seat.

7. The air conditioner according to claim 1, wherein the indirect air outlet is provided to diffuse and blow conditioned air substantially from an entire area of an upper surface of the dashboard.

8. The air conditioner according to claim 1, wherein the indirect air outlet is provided in a door to diffuse and blow conditioned air from a wall surface of the door.

9. The air conditioner according to claim 1, wherein the indirect air outlet is provided in a ceiling of the passenger compartment to diffuse and blow conditioned air substantially from an entire area of the ceiling.

10. The air conditioner according to claim 1, wherein:
the indirect air outlet is a wall-surface air blowing means for indirectly blowing conditioned air toward a passenger in the passenger compartment from an inner design wall portion of the passenger compartment;

the direct air outlet includes a seat air blowing means for directly blowing conditioned air toward a passenger on a seat in the passenger compartment;

the cooling state determining means includes a rapid-cooling determining means for determining whether the rapid cooling

operation is performed; and

the air amount control unit includes a rapid-cooling amount control means for determining a first air amount to be blown from both of the wall-surface air blowing means and the seat air blowing means when the rapid-cooling determining means determines that the rapid cooling operation is performed, and a stationary-cooling amount control means for determining a second air amount to be blown from both of the wall-surface air blowing means and the seat air blowing means when the rapid-cooling determining means determines that the rapid cooling operation is not performed.

11. The air conditioner according to claim 10, wherein:

the rapid-cooling amount control means increases the air amount blown from the seat air blowing means to be larger than the air amount blown from the wall-surface air blowing means, when the cooling state determining means determines that the proceeding state of the rapid cooling operation is in the initial stage with respect to the predetermined stage.

12. The air conditioner according to claim 11, wherein:

when the cooling state determining means determines that the proceeding state of the rapid cooling operation is in the later stage with respect to the predetermined stage, the rapid-cooling amount control means increases a flow ratio of the air amount blown from the wall-surface air blowing means to the air amount blown from the seat air blowing means to be larger than that in the initial stage.

13. The air conditioner according to claim 10, wherein:

when the rapid-cooling determining means determines that the rapid cooling operation is not performed, the stationary cooling-amount control means reduces a total air amount blown into the passenger compartment than that in the rapid cooling operation and increases the air amount blown from the wall-surface air blowing means to be larger than the air amount blown from the seat air blowing means.

14. The air conditioner according to claim 10, wherein:

the indirect air outlet includes a diffusion air blowing means provided in a substantially entire area of an upper surface of a dashboard;

the direct air outlet further includes a local air blowing means provided in the dashboard, from which conditioned air is locally blown;

the rapid-cooling amount control means determines a total air amount blown from the diffusion air blowing means provided in the dashboard, the local air blowing means provided in the dashboard and the seat air blowing means, when the rapid-cooling determining means determines that the rapid cooling operation is performed; and

the stationary-cooling amount control means determines a total air amount blown from the diffusion air blowing means provided in the dashboard, the local air blowing means provided in the dashboard and the seat air blowing means provided in the seat when

the rapid-cooling determining means determines that the rapid cooling operation is not performed.

15. The air conditioner according to claim 14, wherein:

the rapid-cooling amount control means increases an air amount blown from both of the diffusion air blowing means and the local air blowing means provided in the dashboard to be larger than the air amount blown from the seat air blowing means, when the cooling state determining means determines that the proceeding state of the rapid cooling operation is in the initial stage with respect to the predetermined stage.

16. The air conditioner according to claim 15, wherein:

the rapid-cooling amount control means increases an air amount blown from the local air blowing means in the dashboard to be larger than the air amount blown from the diffusion air blowing means provided in the dashboard, when the cooling state determining means determines that the proceeding state of the rapid cooling operation is in the initial stage with respect to the predetermined stage.

17. The air conditioner according to claim 16, wherein:

when the cooling state determining means determines that the proceeding state of the rapid cooling operation is in the later stage with respect to the predetermined stage, the rapid-cooling amount control means increases a flow ratio of the air amount blown from the diffusion air blowing means and the local air blowing means to the air amount blown from the seat air blowing means,

to be larger than that in the initial stage.

18. The air conditioner according to claim 17, wherein:

when the cooling state determining means determines that the proceeding state of the rapid cooling operation is in the later stage with respect to the predetermined stage, the rapid-cooling amount control means increases a flow ratio of the air amount blown from the diffusion air blowing means to the air amount blown from the local air blowing means, to be larger than that in the initial stage.

19. The air conditioner according to claim 14, wherein:

when the rapid-cooling determining means determines that the rapid cooling operation is not performed, the stationary-cooling amount control means increases an air amount blown from both of the diffusion air blowing means and the local air blowing means provided in the dashboard to be larger than an air amount blown from the seat air blowing means while reducing a total air amount blown into the passenger compartment than a total air amount in the rapid cooling operation.

20. The air conditioner according to claim 19, wherein:

the stationary-cooling amount control means increases an air amount blown from the diffusion air blowing means provided in the dashboard to be larger than an air amount blown from the local air blowing means provided in the dashboard, when the rapid-cooling determining means determines that the rapid cooling operation is not performed.